SHINDAIWA OWNER'S/ OPERATOR'S MANUAL

MULTIPURPOSE TRIMMER TOOL

WARNING!

Always wear eye and ear protection when operating this machine!

1439

WARNING!

To minimize the risk of injury to yourself and others, read this manual and familiarize yourself with its contents.

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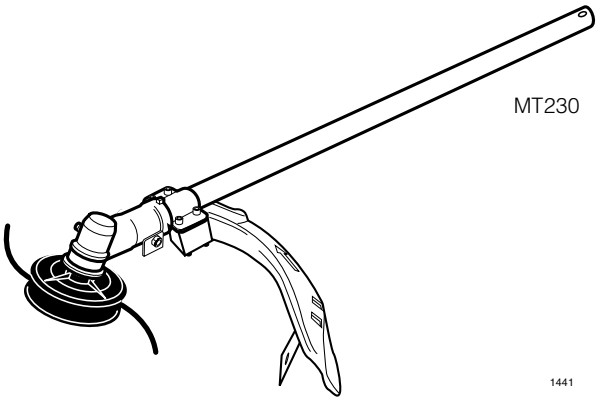

MT230

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shindaiwa

Introduction

The Shindaiwa Multipurpose Trimmer Tool has been designed and built to deliver superior performance and reliability without compromise to quality, comfort, safety or durability.

As an owner/operator, you'll soon discover for yourself why Shindaiwa is simply in a class by itself!

IMPORTANT!

The information contained in these instructions describes machines available at the time of publication.

1442

Shindaiwa Inc. reserves the right to make changes to products without prior notice, and without obligation to make alterations to machines previously manufactured.

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Attention Statements

Throughout this manual are special "attention statements".

WARNING!

A statement preceded by the triangular attention symbol and the word "WARNING" contains information that should be acted upon to prevent serious bodily injury.

1177

CAUTION!

A statement preceded by the word "CAUTION" contains information that should be acted upon to prevent mechanical damage.

1443

IMPORTANT!

A statement preceded by the word "IMPORTANT" is one that possesses special significance.

1179

NOTE:

A statement preceded by the word "NOTE" contains information that is handy to know and may make your job easier.

1180

READ AND FOLLOW THIS OPERATORS MANUAL. FAILURE TO DO SO COULD RESULT IN SERIOUS INJURY.

WEAR EYE AND HEARING PROTECTION AT ALL TIMES DURING THE OPERATION OF THIS UNIT.

KEEP BYSTANDERS AT LEAST 50 FEET (15 M) AWAY DURING OPERATION.

BEWARE OF THROWN OR RICOCHETED OBJECTS.

DO NOT OPERATE THIS MACHINE WITH A BLADE.

1444

IMPORTANT!

The operational procedures described in this manual are intended to help you get the most from your machine as well as to protect you and others from harm. These procedures are guidelines for safe operation under most conditions, and are not intended to replace any safety rules and/or laws that may be in force in your area. If you have questions regarding your 230-series power tool, or if you do not understand something in this manual, your Shindaiwa dealer will be glad to assist you. You may also contact Shindaiwa, Inc. at the address printed on the back of this manual.

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Safety Labels

IMPORTANT!

Safety and Operation Information Labels: Make sure all information labels are undamaged and readable. Immediately replace damaged or missing information labels. New labels are available from your local authorized Shindaiwa dealer.

READ THE OPERATOR' S MANUAL
WEAR HEARING AND ANSI Z87.1 APPROVED EYE PROTECTION
50 FEET (15m)
KEEP BYSTANDERS AWAY AT LEAST 50 FEET (15m)
BEWARE OF THROWN OR RICOCHETED OBJECTS
DO NOT OPERATE THIS MACHINE WITH A BLADE
Shindaiwa Inc.
19422-00028

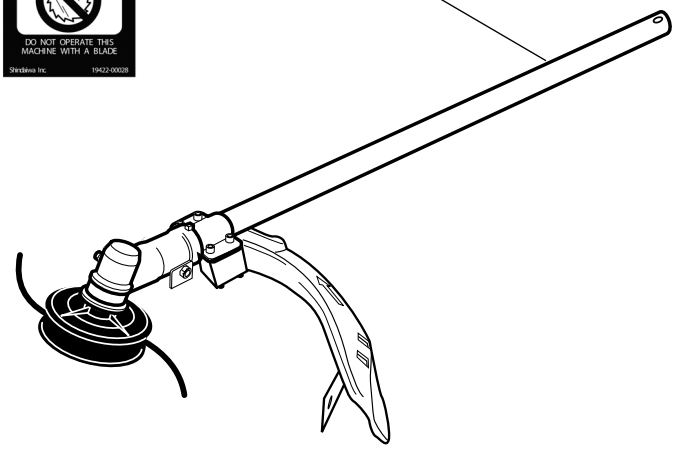

Figure 1

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Operating Precautions

WARNING!

- This Shindaiwa trimmer tool is specifically designed for use on the Shindaiwa Multipurpose Tool Carrier. Installation and/or use on any other model, brand or type of power tool is not approved by Shindaiwa. Attempts to use on non-approved models can damage the equipment and cause accidents, serious injury or death.
- Always make sure the Multipurpose Trimmer Tool is properly installed and firmly tightened before operation.
- Never use a cracked or warped cutting attachment: replace it with a serviceable one and make sure it fits properly.
- Never smoke or light fires near the engine. Fuel is very flammable and fire could lead to serious personal injury or property damage.
- Make sure there are no missing or loose fasteners, and that the stop switch and throttle controls are working properly.
- Make sure there is always good ventilation when operating this machine. Fumes from engine exhaust can cause serious injury or death. **Never run the engine indoors!**
- Before starting the engine, make sure the cutting attachment is not contacting anything.
- Always stop the engine immediately and check for damage if you strike a foreign object or if the machine becomes tangled. Do not operate with broken or damaged equipment.
- Stop the machine immediately if it suddenly begins to vibrate or shake. Inspect for broken, missing or improperly installed parts or attachments.
- Never transport the machine or set it down with the engine running. An engine that's running could be accidentally accelerated causing the cutting attachment to rotate.
- Make sure cutter safety guards are in place when transporting the machine.

1448

CAUTION!

Never extend trimming line beyond the length specified for your unit.
Always keep the unit as clean as practical. Keep it free of loose vegetation, mud, etc.

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The Properly Equipped Operator

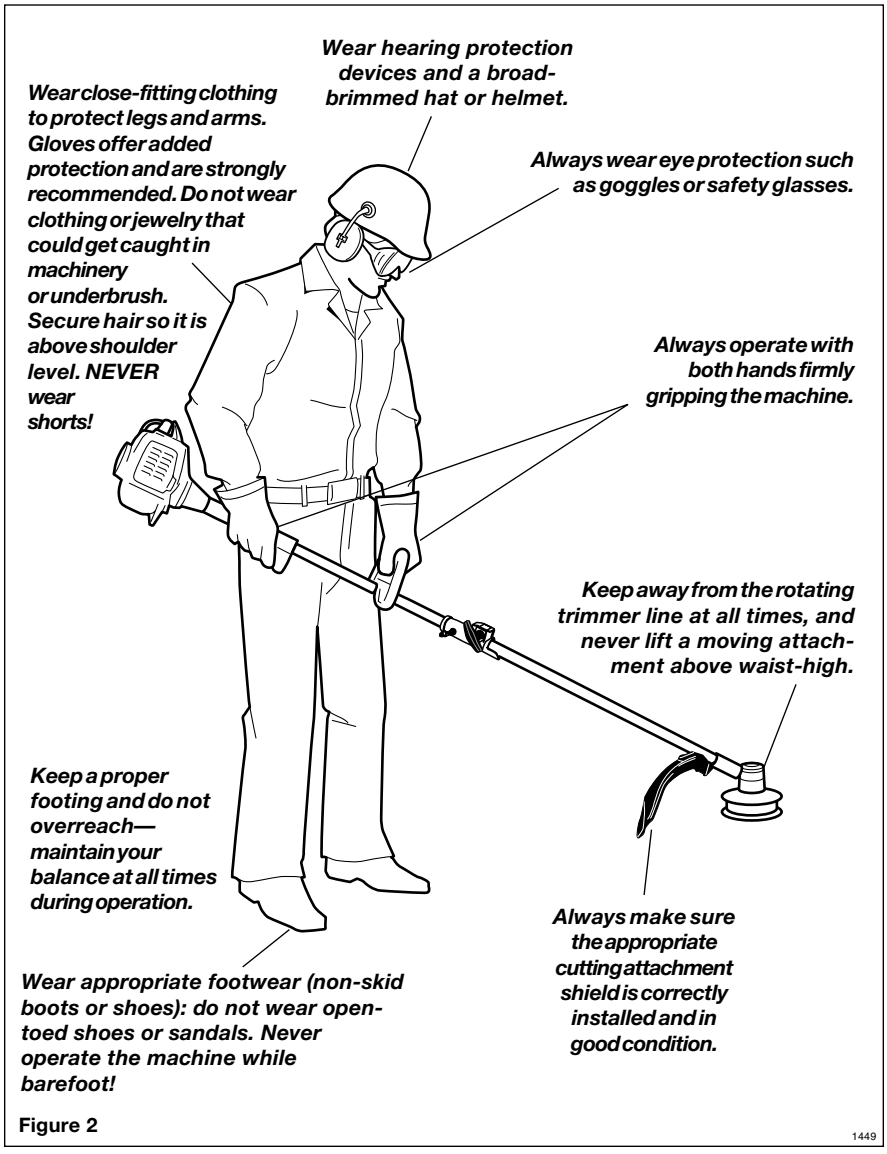
Wear hearing protection devices and a broad-brimmed hat or helmet.
Wear close-fitting clothing to protect legs and arms. Gloves offer added protection and are strongly recommended. Do not wear clothing or jewelry that could get caught in machinery or underbrush. Secure hair so it is above shoulder level. NEVER wear shorts!
Always wear eye protection such as goggles or safety glasses.
Always operate with both hands firmly gripping the machine.
Keep away from the rotating trimmer line at all times, and never lift a moving attachment above waist-high.
Keep a proper footing and do not overreach—maintain your balance at all times during operation.
Always make sure the appropriate cutting attachment shield is correctly installed and in good condition.
Wear appropriate footwear (non-skid boots or shoes): do not wear open-toed shoes or sandals. Never operate the machine while barefoot!

Figure 2

1449

Work Safely

Trimmers run at very high speeds and can do serious damage or injury if they are misused or abused. *Never allow a person without training or instruction to operate your machine!*

WARNING!

Never make unauthorized attachment installations.

1450

General Safety Instructions

DO NOT OPERATE THIS UNIT IF YOU ARE TIRED, ILL OR UNDER THE INFLUENCE OF ALCOHOL, DRUGS, OR MEDICATION.

WARNING! Minimize the Risk of Fire

Never smoke or light fires near the trimmer.
Always stop the engine and allow it to cool before refueling. Avoid overfilling and wipe off any fuel that may have spilled.
Always move the unit to a place well away from a fuel storage area or other readily flammable materials before starting the engine. Use caution when handling fuel. Move the power tool at least 10 feet (3 meters) from the fueling point before starting the engine.
Never place flammable material close to the engine muffler.
Never run the engine without the spark arrester screen in place. Do not operate the machine with the muffler removed.

1452

WARNING!

Use Good Judgment

Always wear eye protection to shield against thrown objects.
Always protect yourself from hazards such as thorny brush and flying debris by wearing gloves and close fitting clothing that covers arms and legs. Never wear shorts. Don't wear loose clothing or items such as jewelry that could get caught in machinery or underbrush. Secure long hair so it is above shoulder level.
Never run the engine indoors! Make sure there is always good ventilation. Fumes from engine exhaust can cause serious injury or death.
Always clear your work area of trash or hidden debris that could be thrown back at you or toward a bystander.
Always use the proper cutting tool for the job.
Always stop the machine immediately if it suddenly begins to vibrate or shake. Inspect for broken, missing or improperly installed parts or attachments.
Always hold the machine firmly with both hands when cutting or trimming, and maintain control at all times.
Always keep the handles clean.
Always disconnect the spark plug wire before performing any maintenance work.

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Be Aware of the Working Environment

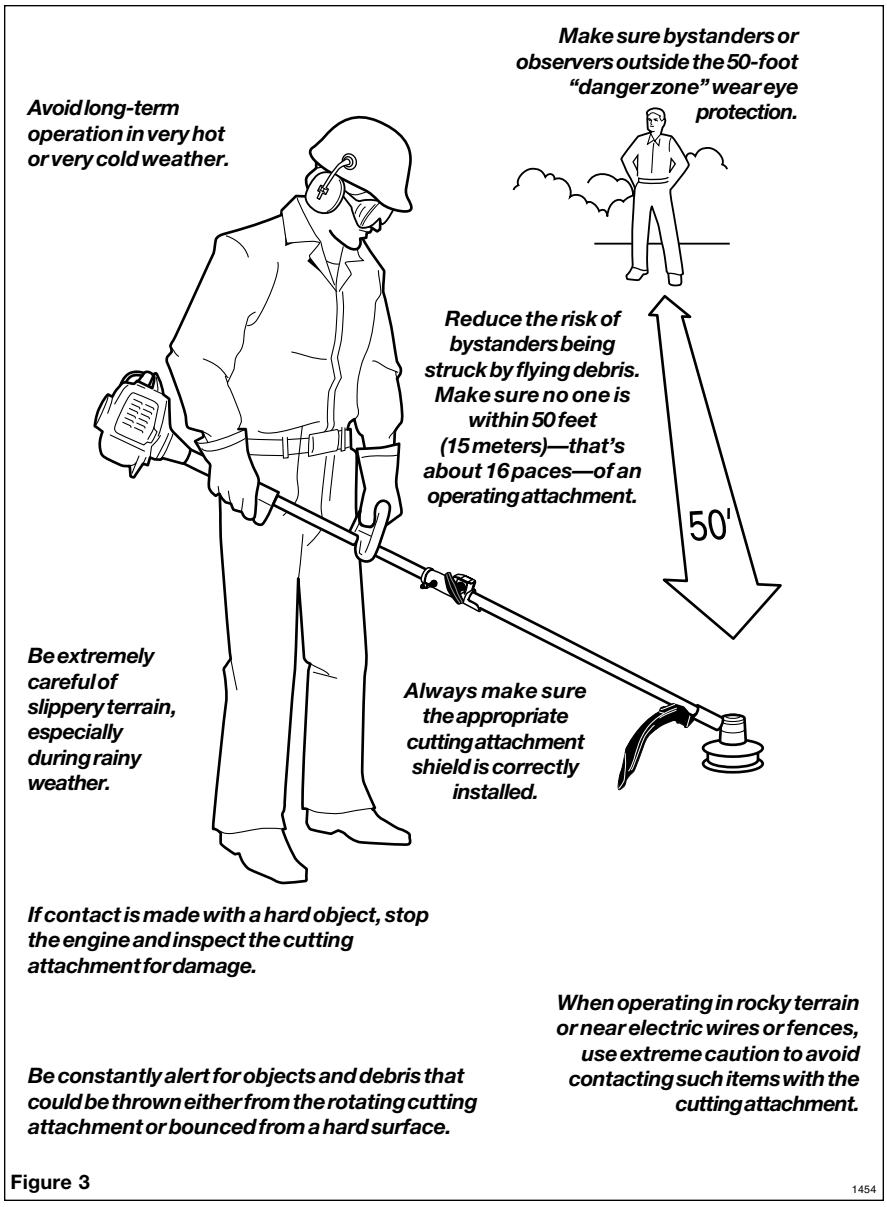
Make sure bystanders or observers outside the 50-foot "danger zone" wear eye protection.
Avoid long-term operation in very hot or very cold weather.
Reduce the risk of bystanders being struck by flying debris. Make sure no one is within 50 feet (15 meters)—that's about 16 paces—of an operating attachment.
50'
Be extremely careful of slippery terrain, especially during rainy weather.
Always make sure the appropriate cutting attachment shield is correctly installed.
If contact is made with a hard object, stop the engine and inspect the cutting attachment for damage.
When operating in rocky terrain or near electric wires or fences, use extreme caution to avoid contacting such items with the cutting attachment.
Be constantly alert for objects and debris that could be thrown either from the rotating cutting attachment or bounced from a hard surface.

Figure 3

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Product Description and Specifications

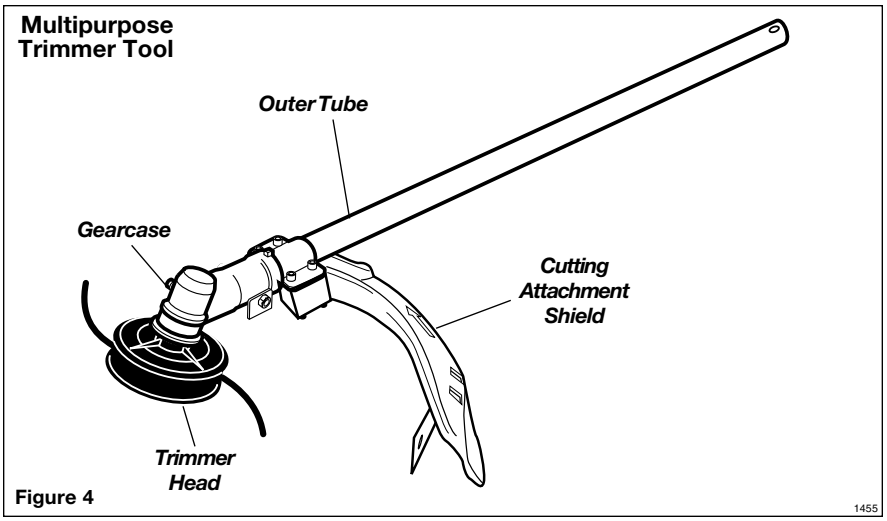

Figure 4

Using the accompanying illustrations as a guide, familiarize yourself with your machine and its various components. Understanding your machine helps ensure top performance, long service life, and safer operation. See Figure 4.

WARNING!

Do not make unauthorized modifications or alterations to any of these units or their components.

1456

Multipurpose Trimmer Tool Specifications

Multipurpose Trimmer Tool (less cutting attachment)	2.5 lbs. (1.2 kg)
Gearcase Lubrication	Lithium based grease (Shindaiwa 13-57)
Gear Reduction	1.286:1
Gearcase Arbor Size	7mm Left-hand thread (female)

*Specifications are subject to change without notice.

Prior to Assembly

Before assembling, make sure you have all the components required for a complete unit:

- Outer Tube/Main Shaft Assembly
- Cutting Attachment Shield
- Trimmer Head
- Kit containing cutting attachment shield mounting bracket and hardware, gearcase tool holder, this owner's/operator's manual and a hex wrench.

Carefully inspect all components for damage.

IMPORTANT!

The terms “left”, “left-hand”, and “LH”; “right”, “right-hand”, and “RH”; “front” and “rear” refer to directions as viewed by the operator during normal operation.

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Assembly
Cutting Attachment Shield

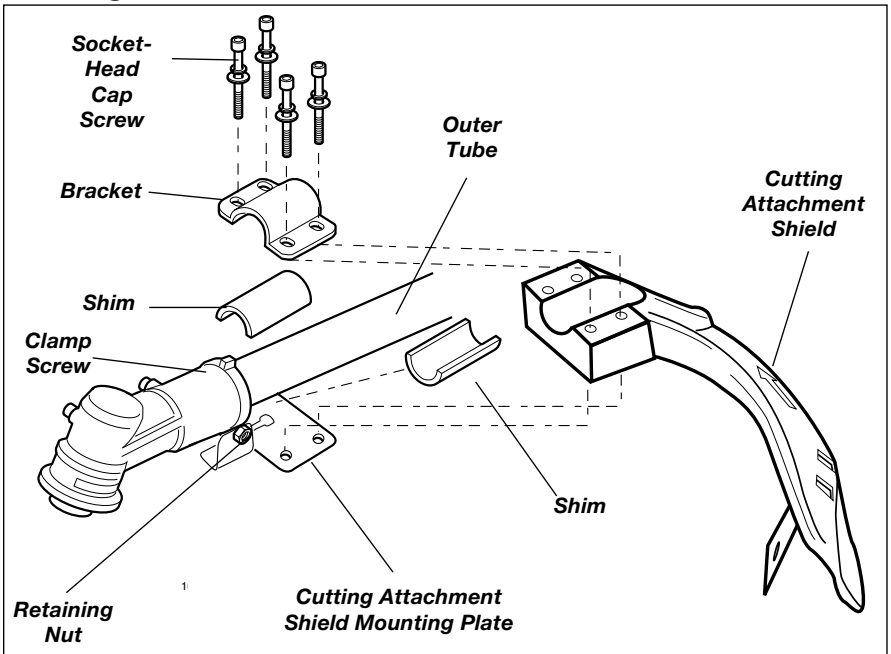

Figure 5

1323

Install the Cutting Attachment Shield.

1. Insert the cutting attachment shield between the outer tube and the cutting attachment mounting plate. See Figure 5.

NOTE:

It may be necessary to loosen the retaining nut and clamp screw to adjust cutting attachment shield mounting plate.

2. Fit the two shims and the bracket over the outer tube and loosely install the four socket-head screws. See Figure 5.

CAUTION!

Make sure the clamp screw and retaining nut is securely tightened before tightening the four socket head screws.

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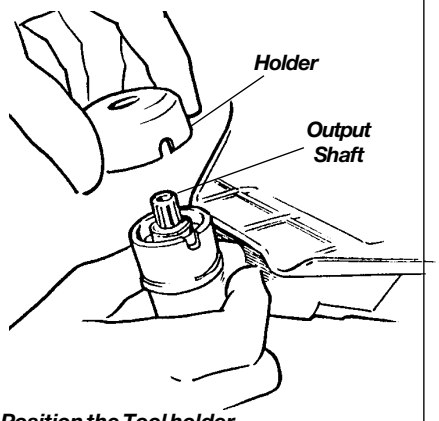
3. Tighten the four socket-head cap screws to secure the cutting attachment shield.

WARNING!

NEVER operate the M230 trimmer without the cutting attachment shield installed and tightly secured!

1211

Assembly
Trimmer Head



Position the Tool holder

Figure 6 1458

Install the trimmer head

Figure 7 1459

Install the Trimmer Head.

1. Turn the trimmer over so that the gearcase output shaft faces UP. See Figure 6.
2. Remove and discard the plastic retaining plug.
3. Position the tool holder as shown, and slide the holder onto the output shaft. See Figure 6.
4. Rotate the tool holder and shaft until the notch in the holder aligns with the notch on the gearcase flange, and use the long end of the hex wrench to lock the output shaft in position. See Figure 7.
5. While holding the hex wrench, thread the trimmer head onto the output shaft, turning counter-clockwise.
6. Using hand pressure only, tighten the trimmer head firmly on the gearshaft. See Figure 7.

IMPORTANT!

The trimmer head has a left-hand thread. Turn the trimmer head counter-clockwise to install. 1460

7. Remove the hex wrench.

WARNING!

A standard T-series machine should NEVER be operated with blade-type attachments. 1461

The Multipurpose Trimmer Tool should now be completely assembled and ready for use.

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Installing a Tool Attachment

1. Place the M230 Multipurpose Tool Carrier and the Tool Assembly on a clean, flat surface so that both assemblies fit end to end. The M230 assembly should be facing up, and the tool assembly should be positioned with the locking hole in the tube end facing up.

CAUTION!

Keep the open ends of the tubes clean and free of debris!

1462

2. Slip off the protective covers from the ends of both tubes, and loosen the coupler screw knob.
3. Insert the upper tube assembly into the coupler, with the tool decal facing up, until the line of the decal is flush with the end of the coupler. Twist the tool back and forth until you are sure the coupler latch snaps in place. See Figure 8.

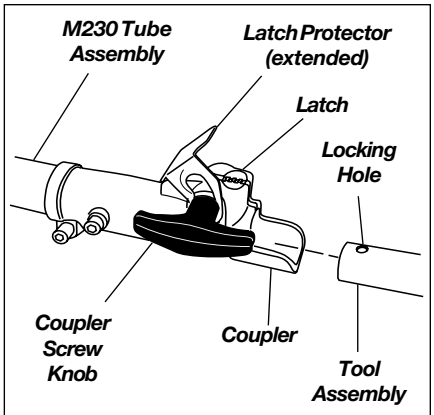

Figure 8 1463

4. When the two tube halves are locked together, press down on the spring-loaded latch protector and tighten the coupler screw. See Figure 9.

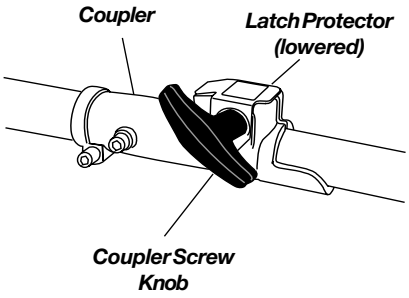

Figure 9 1464

Disassembling The Pole Sections

1. With the pole on a clean, flat surface, loosen the coupler screw. The spring-loaded coupler protector should pop up.
2. Press down on the latch with your finger or thumb. This releases the coupler lock. See Figure 10.
3. Pull the lower tube assembly out of the coupler.

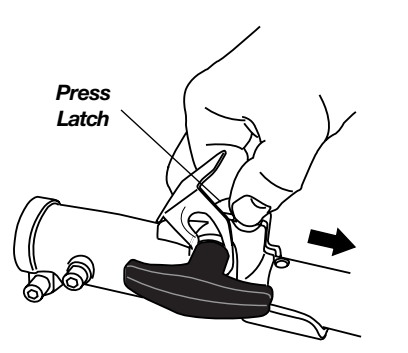

Figure 10 1465

Checking Unit Condition

NEVER operate the unit with the cutting attachment shield or other protective devices (ignition switch, etc.) removed!

WARNING!

A cutting attachment shield or other protective device is no guarantee of protection against ricochet. YOU MUST ALWAYS GUARD AGAINST FLYING DEBRIS!

1465

Use only authorized Shindaiwa parts and accessories with your Shindaiwa trimmer. Do not make modifications to your machine without the written approval of Shindaiwa, Inc.

ALWAYS make sure the cutting attachment is properly installed and firmly tightened before operation.

NEVER use a cracked or warped cutting attachment: replace it with a serviceable one.

ALWAYS make sure the cutting attachment fits properly into the appropriate cutter holder. If a properly installed attachment vibrates, replace the attachment with new one and re-check.

ALWAYS stop the engine immediately and check for damage if you strike a foreign object or if the machine becomes tangled. Do not operate with broken or damaged equipment.

NEVER allow the engine to run at high RPM without a load. Doing so could damage the engine.

NEVER operate a machine with worn or damaged fasteners or attachment holders.

Shoulder Strap

NOTE:

Although a shoulder strap accessory is not required for use with a Multipurpose Trimmer Tool, a shoulder strap can increase operator comfort during extended periods of operation. See Figure 11.

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Shoulder strap is available for use with the Multipurpose Trimmer Tool.

Figure 11

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OPERATION

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Cutting Grass

Your Shindaiwa Multipurpose Trimmer Tool may be equipped with one of several Shindaiwa trimmer head models, each with features for specific applications and/or operational requirements.

NOTE:

For proper operation, always refer to the instructions accompanying the trimmer head being used. Available trimmer head styles include: 1468

- **Semi-automatic.** Trimmer line is indexed when the operator taps the trimmer head on the ground during operation.
- **Manual.** The operator indexes line manually with the grass trimmer stopped.
- **Fixed.** The operator must stop the machine and add new lengths of trimmer line manually.
- **Flail.** This device, designed for clearing weeds and light brush, features three pivoting nylon blades.

CAUTION!

Do not push the rotating trimmer line into trees, wire fences or any other solid objects that could tangle or break line ends. 1469

Engine Operating Speeds

Operate the machine at full throttle while cutting grass.

CAUTION!

Operation at low RPM can lead to premature clutch failure. 1490

Trimming and Mowing Grass

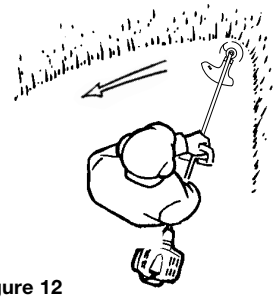

Figure 12 1344

Hold the grass trimmer so the trimmer head is angled slightly into the area to be cut. To ensure maximum trimmer-line service life, cut only with the tip of the trimmer line. Cut grass by swinging the machine's trimmer head from right to left. Keep the trimmer head horizontal. See Figure 12.

Edging

Tilt the handle about 100° to the left (from horizontal) and move forward, holding the trimmer vertically. See Figure 13.

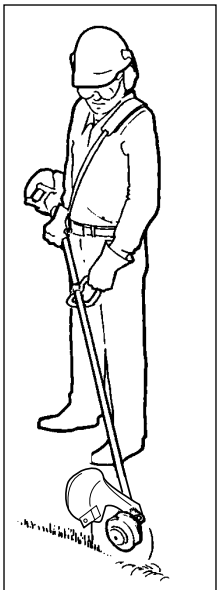

Figure 13 1345

OPERATION

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Maintenance

Engine Maintenance

WARNING!

Before performing any maintenance, repair, or cleaning work on the unit, make sure the engine and cutting attachment are completely stopped. Disconnect the spark plug wire before performing service or maintenance work. 1491

WARNING!

Non-standard parts may not operate properly with your unit and may cause damage and lead to personal injury. 1492

IMPORTANT!

For detailed maintenance information about your Multipurpose Tool Carrier, consult the owner's manual that was provided with it. If it has been lost or misplaced, contact Shindaiwa for a replacement. 1493

NOTE:

Using non-standard replacement parts could invalidate your Shindaiwa warranty. 1494

Prior to each work day, perform the following:

- Carefully remove any accumulations of dirt or debris from the muffler and fuel tank. Dirt build-up in these areas can lead to engine overheating, fire, or premature wear.
- Check for loose or missing screws or components.
- Check the entire machine for leaking fuel or grease.
- Make sure that nuts, bolts, and screws (except carburetor adjusting screws) are tight.

Tool Maintenance

Daily Tool Maintenance

Prior to each work day, perform the following:

- Check for loose or missing screws or components. Make sure the cutting attachment is securely fastened.
- Check the entire machine for leaking fuel or grease.

50-hour Maintenance

Every 50 hours of operation (more frequently in dusty or dirty conditions):

- Remove and clean the cylinder cover and clean grass and dirt from the cylinder fins.
- Remove the cutting attachment and the gear shaft collar, and press new grease into the gear case until the old grease has been pushed out. Use only lithium-base grease such as Shindaiwa Gear Case Lubricant or equivalent. See Figure 14.

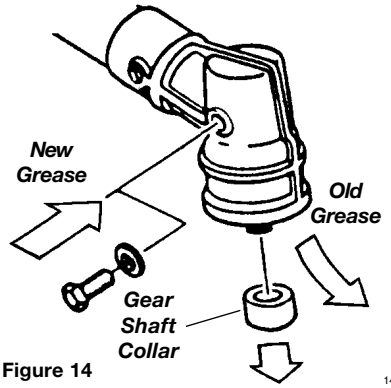

Figure 14 1495

Troubleshooting Guide

ADDITIONAL PROBLEMS

Symptom	Possible Cause	Remedy
Excessive vibration.	Warped or damaged attachment.	Inspect and replace attachment as required.
	Loose gearcase.	Tighten gearcase securely.
	Bent main shaft/worn or damaged bushings.	Inspect and replace as necessary.
Cutter will not rotate.	Shaft not installed in coupler or gearcase.	Inspect and reinstall as required.
	Broken shaft.	Consult with an authorized servicing dealer.
	Damaged gearcase.	Consult with an authorized servicing dealer.
Cutting attachment rotates at engine idle.	Engine idle too high.	Adjust engine idle speed 2,750 RPM. (±250)
	Broken clutch spring or worn clutch spring boss.	Replace clutch spring and shoes as required.

NOTES

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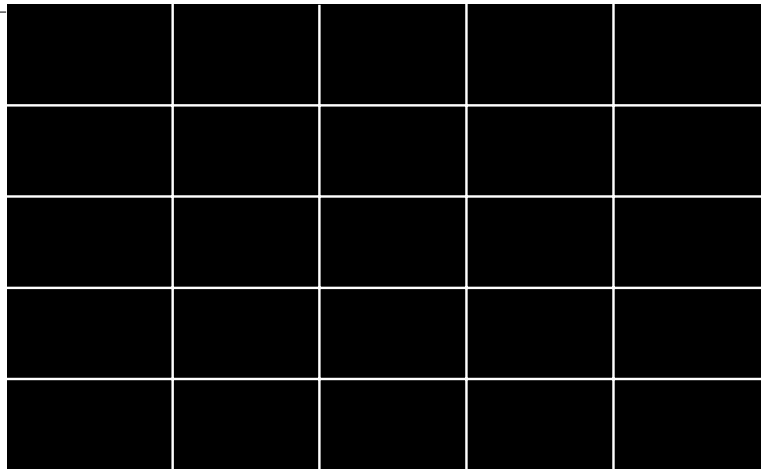

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